

## CLAIMS

What is claimed is:

1. A leadframe-based non-leaded semiconductor package, which comprises:
  - a leadframe having a centrally-located paddle portion and a peripherally-located lead portion surrounding the paddle portion, and wherein the paddle is formed with a recessed portion to a predetermined depth in one surface thereof;
  - at least one semiconductor chip mounted in the recessed portion of the paddle portion of the leadframe;
  - a set of bonding wires for electrically coupling the semiconductor chip to the lead portion of the leadframe; and
  - an encapsulation body for encapsulating the semiconductor chip and the bonding wires while exposing a surface of the lead portion of the leadframe.
2. The leadframe-based non-leaded semiconductor package of claim 1, wherein the recessed portion in the paddle portion of the leadframe is formed through a half-etch process.
3. The leadframe-based non-leaded semiconductor package of claim 1, wherein the bonding wires are gold wires.
4. The leadframe-based non-leaded semiconductor package of claim 1, wherein the leadframe is further formed with stepped portions in the paddle portion and the lead portion thereof.
5. A method for fabricating a leadframe-based non-leaded semiconductor package, comprising the steps of:

(1) preparing a leadframe having a centrally-located paddle portion and a peripherally-located lead portion surrounding the paddle, and wherein the paddle is formed with a recessed portion to a predetermined depth in one surface thereof;

(2) mounting at least one semiconductor chip in the recessed portion of the paddle portion of the leadframe;

(3) electrically coupling the semiconductor chip to the leadframe; and

(4) forming an encapsulation body for encapsulating the semiconductor chip while exposing a surface of the lead portion of the leadframe.

6. The method of claim 5, wherein in said step (1), the recessed portion in the paddle portion of the leadframe is formed through a half-etch process.

7. The method of claim 5, wherein in said step (1) the leadframe is further formed with stepped portions in the paddle portion and the lead portion thereof.

8. The method of claim 5, wherein in said step (3), the semiconductor chip is electrically coupled to the leadframe by means of a set of bonding wires through a wire-bonding process.

9. The method of claim 8, wherein the bonding wires are gold wires.

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